Product Information Sheet for NR-9908

Burkholderia thailandensis, Strain E426

Catalog No. NR-9908

For research use only. Not for human use.

Contributor:

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Product Description:

Bacteria Classification: *Burkholderiaceae*, *Burkholderia*
Species: *Burkholderia thailandensis* (formerly *Burkholderia pseudomallei*-like or *Burkholderia pseudomallei*, Ara$^+$ Biotype)[1,2]
Strain: E426
Original Source: *Burkholderia thailandensis* (*B. thailandensis*), strain E426 is an environmental isolate obtained from a rice field in Amphur Muang in the Ubon Ratchathani province in northeast Thailand in 2001.[3]

B. thailandensis are saprophytic, motile, aerobic, Gram-negative coccobacilli. *B. thailandensis* is genetically similar to both *B. mallei* and *B. pseudomallei* but lacks at least one pathogenicity island and is an avirulent species. In addition to its avirulence it can be differentiated from *B. pseudomallei* by some or all of the following: biochemical differences (assimilation of L-arabinose, 5-keto-gluconate, and adonitol, and no utilization of erythritol and dulcitol); differences in the 16S sequence (15 nucleotide dissimilarities); differences in lipopolysaccharide composition; and colony morphology on Ashdown's selective media.[1,2] *B. thailandensis* is commonly found in Southeast Asia (central Thailand in particular) and some isolates have been obtained from northern Australia.[4] Typical *B. thailandensis* are resistant to aminoglycosides but sensitive to tetracycline, ceftazidine and trimethoprim.[1]

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Nutrient Broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-9908 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Media:
Nutrient Broth or equivalent
Nutrient Agar or equivalent
Incubation:
Temperature: 30°C or 37°C
Atmosphere: Aerobic
Propagation:

1. Keep vial frozen until ready for use; thaw slowly.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tubes and plate at 30°C or 37°C for 48 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Burkholderia thailandensis*, Strain E426, NR-9908."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:

1. Brett, P. J., D. Deshazer and D. E. Woods. "*Burkholderia thailandensis* Sp. Nov., a *Burkholderia pseudomallei*-Like Species." Int. J. Syst. Bacteriol. 48 Pt 1 (1998): 317-320. PubMed: 9542103.
2. Woods, D. E. "Species versus Biotype Status." J. Clin. Microbiol. 37 (1999): 3786-3787. PubMed: 10610379.
3. Susan J. Peacock, personal communication.
4. Gee, J. E., et al. "Recovery of a *Burkholderia thailandensis*-Like Isolate from an Australian Water Source." BMC Microbiol. 8 (2008): 54. PubMed: 18384685.
5. Inglis, T. J., et al. "Cellular Fatty Acid Profile Distinguishes *Burkholderia pseudomallei* from Avirulent *Burkholderia thailandensis*." J. Clin. Microbiol. 41 (2003): 4812-4814. PubMed: 14532228.
6. Inglis, T. J., et al. "Comparison of Diagnostic Laboratory Methods for Identification of *Burkholderia pseudomallei*." J. Clin. Microbiol. 43 (2005): 2201-2206. PubMed: 15872242.

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